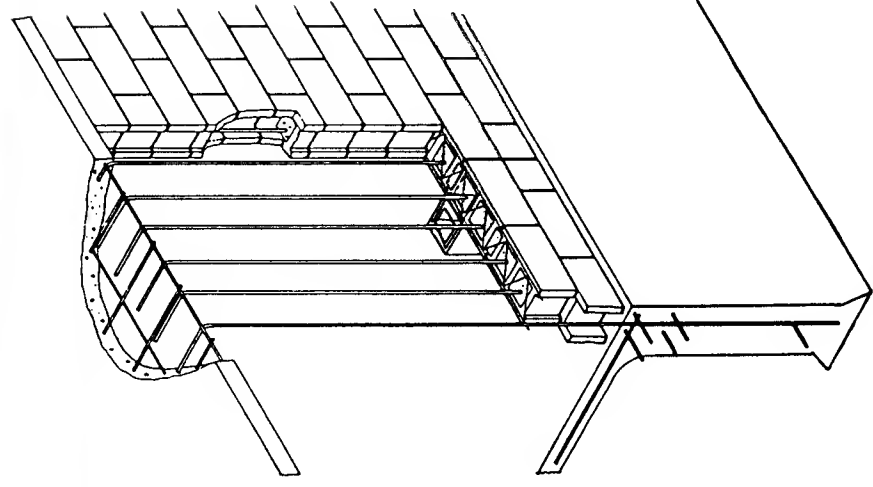
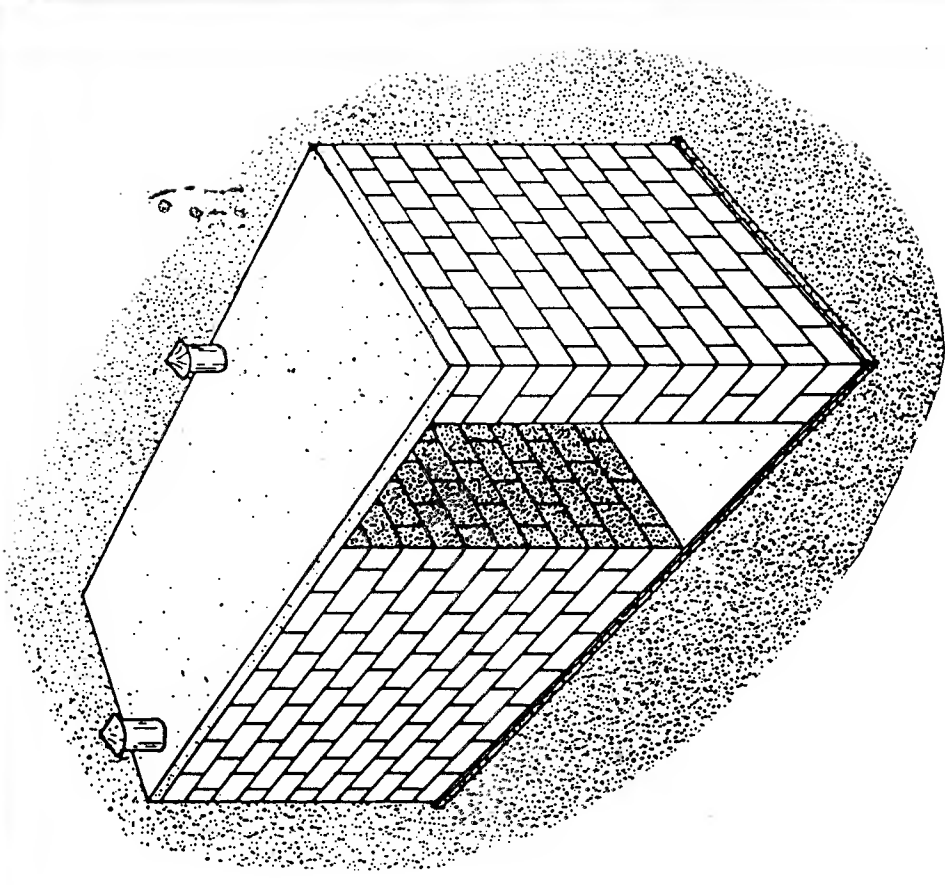


FLOOR PLAN

CUT-AWAY ISOMETRIC OF
SIDEWALL AND ROOF
(NOT TO SCALE)



PERSPECTIVE (NOT TO SCALE)

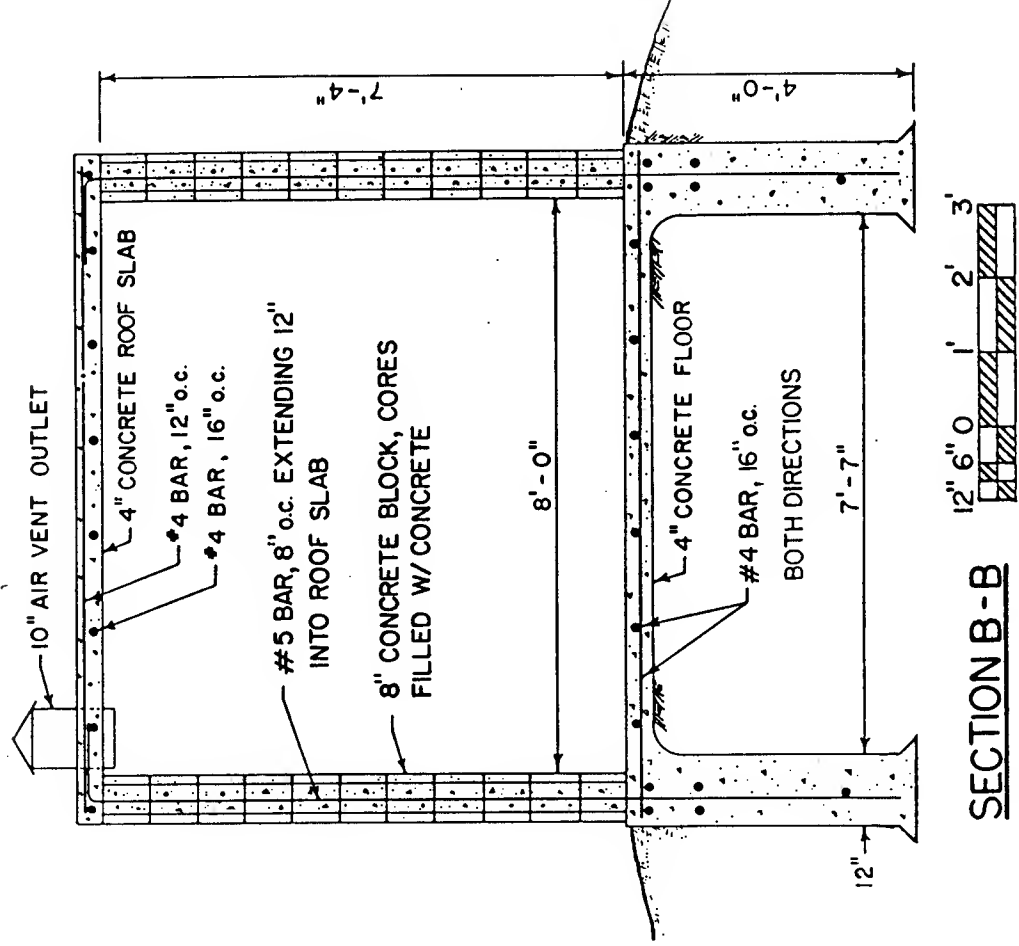


NOTES:

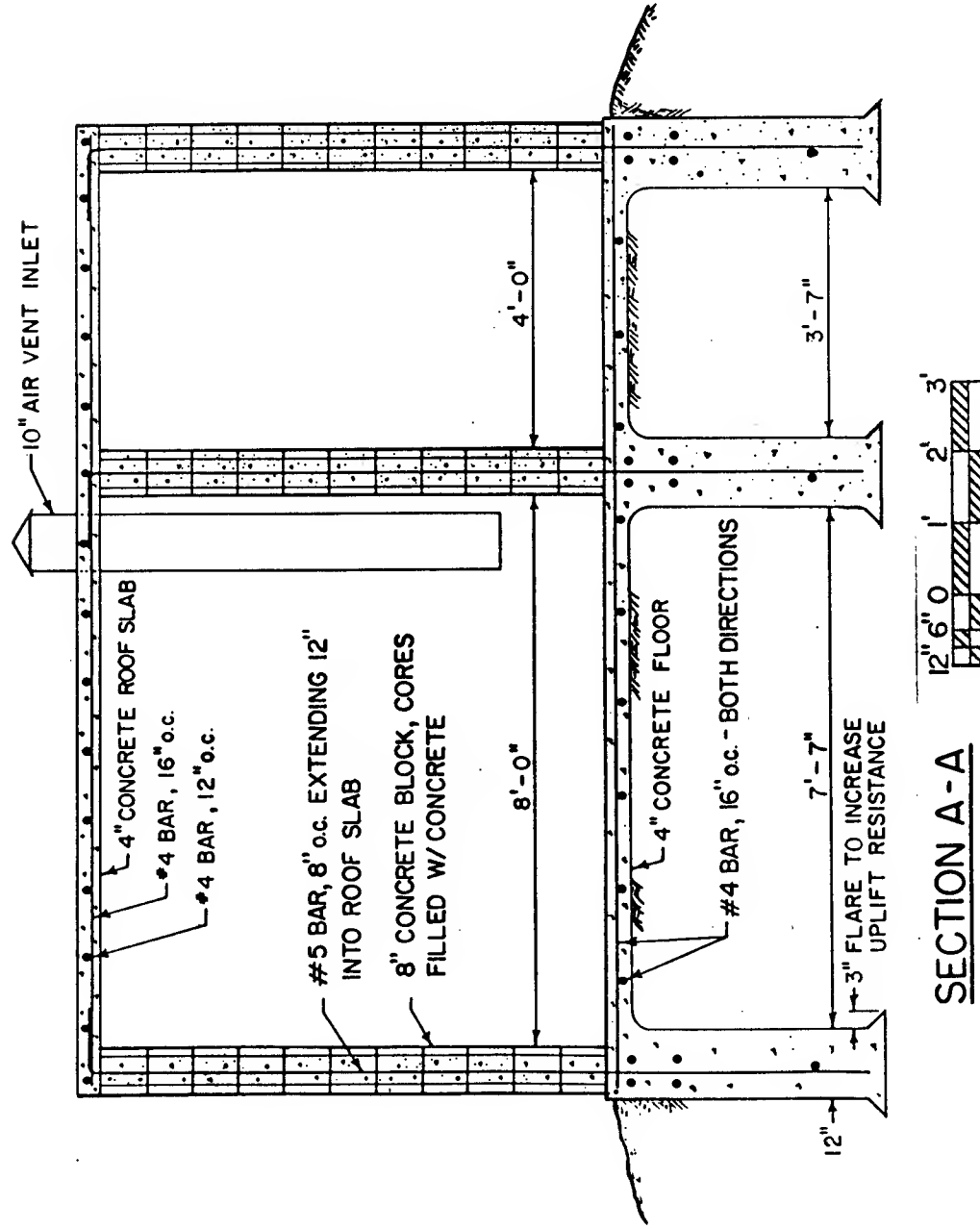
THIS SHELTER IS DESIGNED TO WITHSTAND THE PRESSURES INDUCED BY A 260 MPH WIND AS RECOMMENDED BY "INTERIM GUIDELINES FOR BUILDING OCCUPANT PROTECTION FROM TORNADOES AND EXTREME WINDS", TR-83A, DEFENSE CIVIL PREPAREDNESS AGENCY, SEPTEMBER, 1975.

SHELTER OPENING SHOULD FACE AWAY FROM PROBABLE STORM DIRECTION. EASTERN EXPOSURES FIT THE NEED FOR MOST OF U.S..

CONSULT LOCAL BUILDING AUTHORITIES BEFORE STARTING CONSTRUCTION.



SECTION B-B



SECTION A-A

GENERAL SPECIFICATIONS

CONCRETE: 3,500 PSI MINIMUM COMPRESSIVE STRENGTH

STEEL: 40,000 PSI MINIMUM YIELD STRENGTH REINFORCEMENT BARS. OVERLAP SPLICES A MINIMUM OF 12 INCHES AND USE WIRE TIES TO SECURE. DO NOT WELD.

CONCRETE MASONRY: 8-INCH SAND AND GRAVEL BLOCKS

MORTAR: TYPE M OR S

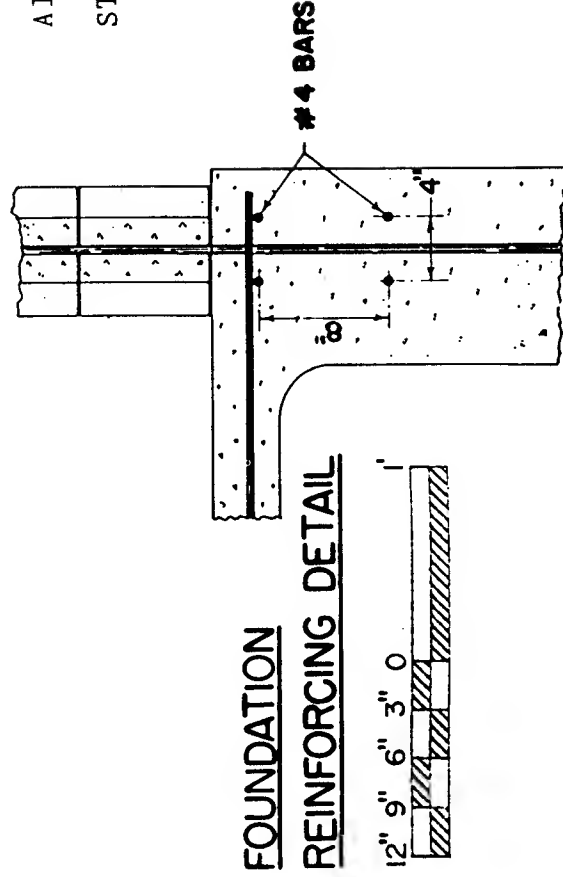
JOINT REINFORCEMENT: PLACE HORIZONTAL, TRUSS-DESIGN, REINFORCEMENT AT EVERY HORIZONTAL MORTAR JOINT. OVERLAP SLICES A MINIMUM OF 6 INCHES AND USE WIRE TIES TO SECURE.

GROUT: USE NOT LESS THAN 6 BAGS PORTLAND CEMENT PER CUBIC YARD OF GROUT AND AGGREGATE NO LARGER THAN 1/2-INCH DIAMETER.

OTHER USE: ALTHOUGH STRUCTURE MAY BE SUITABLE FOR VEGETABLE OR OTHER STORAGE IT SHOULD NOT BE USED FOR THAT PURPOSE AS IT WILL REDUCE CAPACITY AND MAY BLOCK ENTRY.

BILL OF MATERIALS

| DESCRIPTION | QUANTITY |
|--|--------------|
| CONCRETE | 10.5 CU. YD. |
| FOUNDATION AND FLOOR | 2 CU. YD. |
| ROOF | 6 CU. YD. |
| GROUT (ALL CORES FILLED) | 9 CU. YD. |
| MORTAR | |
| CONCRETE BLOCK | 296 |
| STRETCHER | 56 |
| CORNER | 11 |
| DOUBLE CORNER | 22 |
| HALF CORNER | |
| REINFORCED CONCRETE LINTEL, 4'-8" LENGTH | 2 |
| REINFORCING STEEL | |
| NO. 5 (5/8-INCH DIA.) | 820 FT. |
| NO. 4 (1/2-INCH DIA.) | 700 FT. |
| JOINT REINFORCEMENT | 500 FT. |
| AIR VENT (10-INCH DIA.) | 8 FT. |
| STEEL DOOR AND FRAME, 3'-0" X 6'-8" | 1 |



FOUNDATION
REINFORCING DETAIL

COOPERATIVE EXTENSION SERVICE
AGRICULTURE AND HOME ECONOMICS
Agricultural Extension Service
University of Tennessee Institute of Agriculture
Agricultural Engineering Department

UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING

ABOVE-GROUND STORM SHELTER

OK 1985 6376 SHEET 1 OF 1